



# UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE  
United States Patent and Trademark Office  
Address: COMMISSIONER FOR PATENTS  
P.O. Box 1450  
Alexandria, Virginia 22313-1450  
[www.uspto.gov](http://www.uspto.gov)

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/932,910	08/20/2001	Gregory T. Whiteker	1998U020AD1.US	9327
25959	7590	05/20/2004	EXAMINER	
UNIVATION TECHNOLOGIES LLC			PASTERCZYK, JAMES W	
5555 SAN FELIPE, SUITE 1950			ART UNIT	PAPER NUMBER
HOUSTON, TX 77056			1755	

DATE MAILED: 05/20/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

<b>Office Action Summary</b>	Application No.	Applicant(s)
	09/932,910	WHITEKER ET AL.
	Examiner J. Pasterczyk	Art Unit 1755

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

#### Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

#### Status

- 1) Responsive to communication(s) filed on 04 May 2004.  
 2a) This action is **FINAL**.                    2b) This action is non-final.  
 3) Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

#### Disposition of Claims

- 4) Claim(s) 1,2,4-13 and 15-36 is/are pending in the application.  
 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.  
 5) Claim(s) \_\_\_\_\_ is/are allowed.  
 6) Claim(s) 1,2,4-13 and 15-36 is/are rejected.  
 7) Claim(s) \_\_\_\_\_ is/are objected to.  
 8) Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

#### Application Papers

- 9) The specification is objected to by the Examiner.  
 10) The drawing(s) filed on \_\_\_\_\_ is/are: a) accepted or b) objected to by the Examiner.  
     Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
     Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).  
 11) The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

#### Priority under 35 U.S.C. § 119

- 12) Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).  
 a) All    b) Some \* c) None of:  
 1. Certified copies of the priority documents have been received.  
 2. Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.  
 3. Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

#### Attachment(s)

- |  |   |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892)  | 4) <input type="checkbox"/> Interview Summary (PTO-413)<br>Paper No(s)/Mail Date. _____ . |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)                                     | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152)               |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)<br>Paper No(s)/Mail Date _____ . | 6) <input type="checkbox"/> Other: _____ .  |

Art Unit: 1755

1. This Office action is in response to the RCE filed 5/4/04; the version of the claims under consideration in this Office action is that presented in the after final amendment of 4/8/04.

2. Claims 1, 2, 4-13 and 15-36 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

In claim 1, second page of the claim, there appears to be an inconsistency between l. 7 and l. 10 in that the former includes sulfur as a member of the heteroatoms, while the latter does not. In l. 8 it appears as if R<sup>1</sup> should also be included with R<sup>2</sup>, R<sup>4</sup> and R<sup>5</sup>. In l. 13 delete the "a" and insert --and-- at the end of the line. In l. 22-24, it appears that the ortho carbons should be plural along with their verb. On the last page, the penultimate line also has this latter problem.

In claim 2, last line, change "or" to --and--.

Claim 12 has the same problems as claim 1 regarding sulfur as a member of the heteroatoms and the presence of R<sup>1</sup> in the group. On the second page, in the d) proviso change "may be" to --is-- for definiteness. In the third line from the end change "an" to --a--.

In claim 29, last line, change "or a mixture" to --and mixtures--.

In claim 30 the presence of the support appears to be a non sequitur and lack antecedent basis since it is not recited in claim 12 from which this claim depends.

3. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Art Unit: 1755

4. Claims 1, 2, 4-13 and 15-36 are rejected under 35 U.S.C. 103(a) as being unpatentable over each of Bell, USP 4,981,931 (hereafter Bell I), Katayama et al., USP 5,840,646 (hereafter referred to as Katayama), Coleman, App. Catalysis, vol. 22, pp. 345-359 (hereafter referred to as Coleman), Basset et al., EP 0 259 215 (hereafter referred to as Basset), Bell, USP 5,319,042 (hereafter referred to as Bell II), Sjardijn et al., USP 4,729,976 (hereafter referred to as Sjardijn), and Chem. Abstracts, vol. 131, no. 8, abstract # 102661 to Matsui et al. (hereafter referred to as Matsui).

Bell I (col. 2, l. 18-52; col. 3, l. 45; col. 4, l. 33-67; col. 5, l. 18; col. 6, l. 21-29; example 2), Katayama (col. 9, l. 58 to col. 12, l. 2; col. 13, l. 60; col. 14, l. 40; col. 15, l. 40; col. 16, l. 30; col. 17, l. 20; col. 18, l. 5; col. 19, l. 5; col. 20, l. 5; col. 21, l. 10; col. 22, l. 10; col. 23, l. 10), Coleman (table 1; p. 347), Basset (p. 2, l. 25; p. 3 all; p. 4, l. 6-45), Bell II (col. 2, l. 5; examples), Sjardijn (col. 1, l. 40-68), and Matsui (abstract) all disclose compounds that are analogous to those of the present invention with the difference of using different heteroatoms than those of the present invention in particular substitution positions or with different numbers of methylene groups in hydrocarbyl chains.

However, none of these references clearly discloses that substitution of different heteroatoms or numbers of methylene groups in a polymethylene chain would have been beneficial.

Nevertheless, it would have been within the skill of the routineer in the art to make these simple changes in the molecules of the prior art to arrive at the present invention. The remaining limitations of the dependent claims would likewise have been within the skill of the routineer in the art to achieve with only minor experimentation.

Art Unit: 1755

It would have been obvious to one of ordinary skill to apply that skill to the disclosures of any of the primary references with a reasonable expectation of obtaining a highly-useful catalyst with the expected benefit of greater flexibility in choice of starting materials for the transition metal portion of the catalyst.

5. Any inquiry concerning this communication or earlier communications from the examiner should be directed to J. Pasterczyk whose telephone number is 571-272-1375. The examiner can normally be reached on M-F from 9 to 5:30.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Mark Bell, can be reached at 571-272-1362. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).



J. Pasterczyk

AU 1755

5/12/04



Mark L. Bell  
Supervisory Patent Examiner  
Technology Center 1700